US Army Corps of Engineers

Nashville District

Public Notice

Public Notice No. 05-106 Date: December 12, 2005

Application No. 2005-02419 Expiration Date: January 12, 2006

Please address all comments to:
Nashville District Corps of Engineers, Regulatory Branch
3701 Bell Road, Nashville, TN 37214 Attn: Lisa Morris

SUBJECT: Proposed Deposit of Fill Material for Channel Relocations and Utilities Associated with Subdivision Development on an Above Headwaters Tributary of Station Camp Creek Mile 6.5, Left Bank, Sumner County, TN

TO ALL CONCERNED: The application described below has been submitted for a Department of the Army (DA) Permit pursuant to **Section 404 of the Clean Water Act (CWA).** Before a permit can be issued, certification must be provided by the state of Tennessee, Division of Water Pollution Control, Department of Environment and Conservation, pursuant to Section 401(a)(1) of the CWA, that applicable water quality standards will not be violated.

APPLICANT: James W. Carell
6440 Edinburgh Drive
Nashville, TN 37211

LOCATION: Tributary of an Unnamed Tributary of Station Camp Creek Mile 6.5, Left Bank, Sumner County, TN. Station Camp Creek is a tributary of the Cumberland River (Old Hickory Lake) at Mile 237.0, Right Bank. (Cottontown Quad, lat 36-23-00, lon 86-33-00)

DESCRIPTION: The proposed work consists of the discharge of fill material associated with the development of a 418-single and multi-family residential development (Carellton). The development would be constructed in five phases with a build-out scheduled at 8 to 10 years. The development would require (1) stream crossings with utilities, (2) an impoundment of a stream, and (3) relocation of approximately 2,300 linear feet of above headwater stream channel. Characteristics of the streams are shown in Exhibit B and described in Exhibit C. Also proposed are bridge span road crossings. According to the application, the following information describes the proposed action:

- Estate homes would be positioned 150+ feet from Long Hollow Pike to buffer the stream that parallels the southern (front) boundary of the property
- A 450 foot diameter circular drive located at the terminus of the main boulevard (Road A) would be utilized to preserve a mass of existing trees protecting the main drainage way (F) flowing north to south through the development

- A 120 foot natural buffer would be maintained along the main drainage way (F) which flows north to south through the development
- Roadway alignment was adjusted to parallel the main drainage way (F) in the northern section of the development to maintain a 60 foot natural buffer
- In-line detention at the southern end of the main drainage way (F) was designed for avoidance of the relocation of a large length of the subject stream through the utilization of in-line detention, preservation of the riparian zone at the confluence of the drainage ways (F & A) in the southwest section of the development, preservation of a screening buffer between the Carellton development and the neighboring properties to the west, minimization of sanitary sewer crossings of the main drainage way (F) to two and preservation of existing riparian vegetation in those areas, avoidance of stream bank disturbance within the outline of the in-line detention, creation of detention berms well off the stream banks in order to detain stormwater in the event of heavy rains and release of the stormwater at a controlled rate as to not disturb downstream flows, landscaping of the in-line detention area as outlined in the Stream Mitigation Guidelines.
- The existing pond (J) in the northwest section of the development would be converted and enhanced into a larger pond with the associated stream relocated to the west.
- There would be "no net loss" of stream due to stream relocations.
- Relocated streams would be constructed to mimic upstream characteristics of the same stream or nearby drainage features.
- Riparian vegetation for the relocated streams would consist of native species.

Span Bridges. There a total of nine stream span bridges for either roadways or equestrian bridges are proposed, but would not require a DA Permit, as follows:

Designation	Type of Crossing	General Location
A2	span bridge system	Road A immediately off of Long Hollow Pike
A3	span bridge system	Road B immediately off of Long Hollow Pike
F1	span bridge system	Roadway in north central section of the development
F2	span bridge system	Roadway in north central section of the development
F3	span bridge system	Roadway in central section of the development
F4	span bridge system	Circular drive; terminus of Road A
F5	span bridge system	Circular drive; terminus of Road A
K2	span bridge system	Road E in southeast section of the development
Equestrian	bridge system	Station Camp Creek to the northwest

Stream Crossings (Sanitary Sewer). The Carellton development has been limited to two stream crossings by sanitary sewer, as follows:

Designation	Type of Crossing	General Location
F6	12" PVC sanitary sewer	Stream F, immediately west of Road A
F7	12" PVC sanitary sewer	Southernmost end of Stream F

The sanitary sewer lines would be constructed below the streambed utilizing hoe-ram technology thereby preserving the natural streambed of the associated creek.

Stream Crossings (Potable Water Lines)

The Carellton development requires six stream crossings by potable water lines, as follows:

Designation	Type of Crossing	General Location
A2	12” ductile iron water line	Road A immediately off of Long Hollow Pike
F1	12” ductile iron water line	Roadway in north central section of the development
F2	12” ductile iron water line	Roadway in north central section of the development
F5	8” ductile iron water line	Circular drive; terminus of Road A
K2	8” ductile iron water line	Road E in southeast section of the development
L1	12” ductile iron water line	Station Camp Creek to the northwest

The potable water lines would be constructed within the span bridge systems where feasible with the exception of the 12” line across Station Camp Creek to the northwest. This line would replace an existing 4” line crossing beneath the streambed.

Stream Impoundment

The development requires water quantity control through the utilization of detention for post-development stormwater run-off. A detention area is proposed in the southwest section of the development in the general area of Stream F (F5, F6, F7). Detention would be obtained through the construction of a berm during Phase I of construction. The detention area would have two outlets consisting of a span structure over Stream F and a pipe outlet at the southeast corner of the detention area. Stream F and approximately 25 feet from the tops of the banks would be preserved. During construction, a temporary berm would be constructed along the eastern side of Stream F thereby creating a temporary sedimentation pond and further protecting the stream.

Stream Relocations

Designation	Length (ft)		Relocated Length (ft)	
	Individual	*Cumulative*	*Individual*	*Cumulative*
F1-F2	500	500	500	500
G1	950	1,450	550	1,050
D1	400	1,850	1,275	2,325
K1	275	2,125	----------	2,325
J1	250	2,375	320	2,645

(Net gain/loss = 2,645-2,375 = + 270 feet)

Relocated streams would be constructed to mimic upstream characteristics of the same stream or nearby drainage features obtained from a stream cross-section and riparian vegetation survey performed on October 27, 2005.

Plans of the proposed work are attached to this notice.

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the work, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. In addition, the evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b)(1) of the CWA. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a hearing and to determine the overall public interest of the proposed activity. An Environmental Assessment will be prepared by this office prior to a final decision concerning issuance or denial of the requested DA Permit.

The National Register of Historic Places has been consulted and no properties listed in or eligible for the National Register are known which would be affected by the proposed work. This review constitutes the full extent of cultural resources investigations unless comment to this notice is received documenting that significant sites or properties exist which may be affected by this work, or that adequately documents that a potential exists for the location of significant sites or properties within the permit area. Copies of this notice are being sent to the office of the State Historic Preservation Officer.

Based on available information, the proposed work will not destroy or endanger any federally-listed threatened or endangered species or their critical habitats, as identified under the Endangered Species Act, and, therefore, initiation of formal consultation procedures with the U.S. Fish and Wildlife Service is not planned at this time. Other federal, state, and/or local approvals may be required for the proposed work. The state of Tennessee, Department of Environment and Conservation, must issue a water quality certification for the work in accordance with Section 401(a)(1) of the CWA.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Written statements received in this office on or before January 12, 2006, will become a part of the record and will be considered in the determination. Any response to this notice should be directed to the Regulatory Branch, Attention: Lisa R. Morris, at the above address, telephone (615) 369-7504.

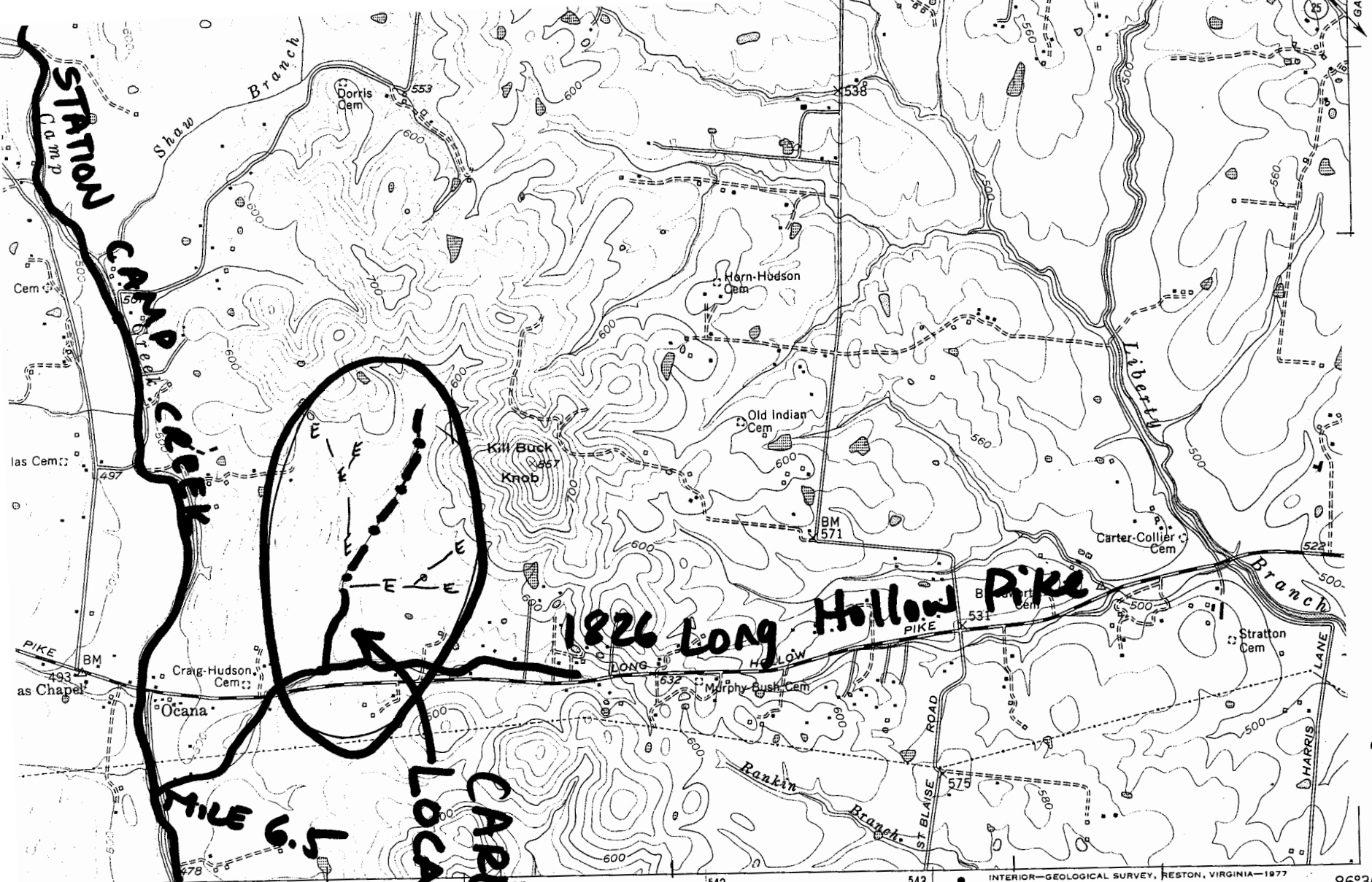


EXHIBIT A
File No. 2005-02419
Public Notice 05-106
LOCATION MAP – Cottontown TN USGS Quad

(LAGUARDO)
3756 IV SW

(IDERSONVILLE)
3656 I SE

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1977

ROAD CLASSIFICATION

Heavy-duty — 4 LANE | 6 LANE — Light-duty
Medium-duty — 4 LANE | 6 LANE — Unimproved dirt
U. S. Route — State Route

CALE 1:24 000

0 1 MILE
0 3000 4000 5000 6000 7000 FEET
0 1 KILOMETER

INTERVAL 20 FEET
IC VERTICAL DATUM OF 1929

NATIONAL MAP ACCURACY STANDARDS
GICAL SURVEY, RESTON, VIRGINIA 22092

TENNESSEE
QUADRANGLE LOCATION

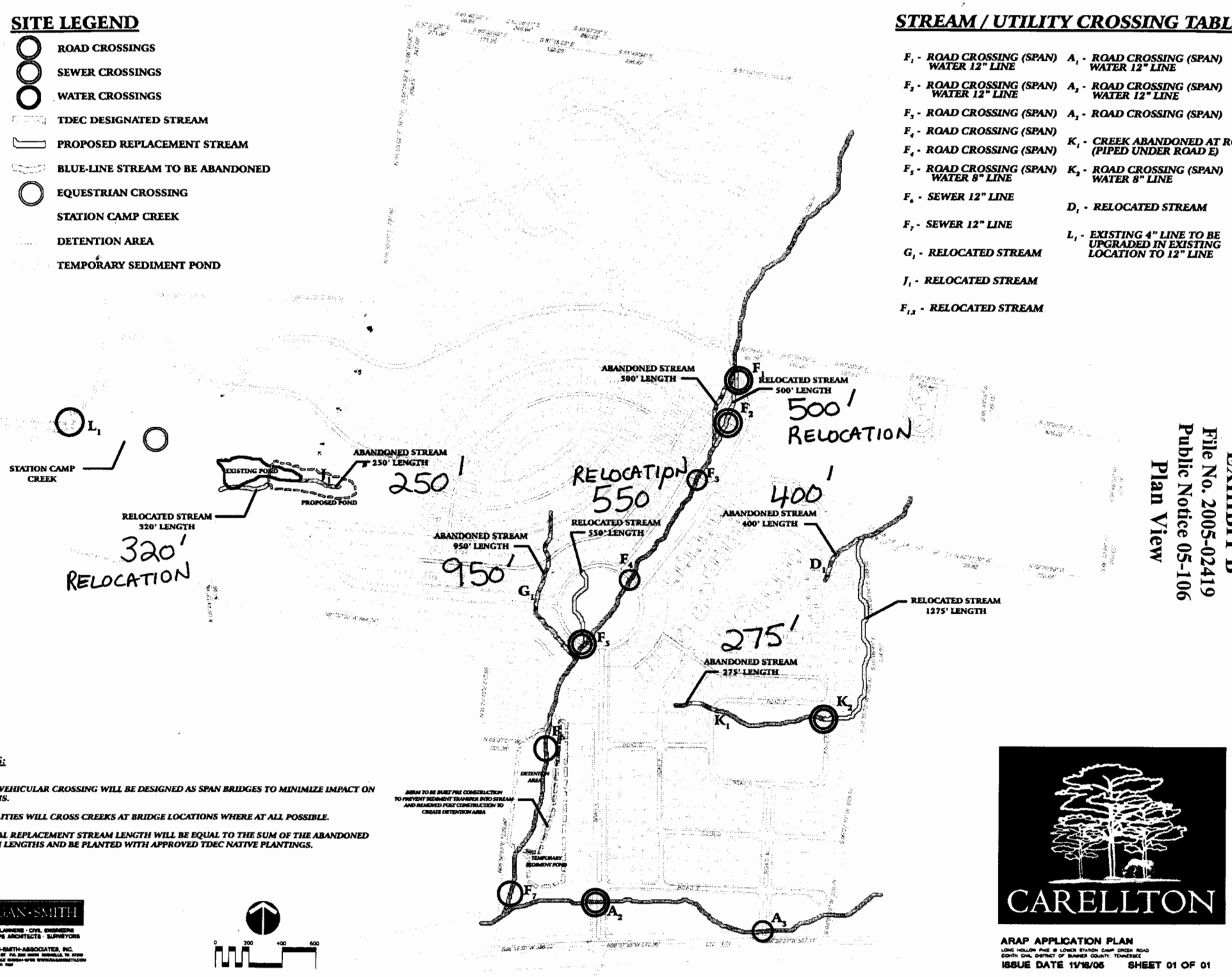
COTTONTOWN, TENN.
N3622.5–W8630/7.5

SITE LEGEND

- ROAD CROSSINGS
- SEWER CROSSINGS
- WATER CROSSINGS
- TDEC DESIGNATED STREAM
- PROPOSED REPLACEMENT STREAM
- BLUE-LINE STREAM TO BE ABANDONED
- EQUESTRIAN CROSSING
- STATION CAMP CREEK
- DETENTION AREA
- TEMPORARY SEDIMENT POND

STREAM / UTILITY CROSSING TABLE

F_1 - ROAD CROSSING (SPAN) WATER 12" LINE	A_1 - ROAD CROSSING (SPAN) WATER 12" LINE
F_2 - ROAD CROSSING (SPAN) WATER 12" LINE	A_2 - ROAD CROSSING (SPAN) WATER 12" LINE
F_3 - ROAD CROSSING (SPAN)	A_3 - ROAD CROSSING (SPAN)
F_4 - ROAD CROSSING (SPAN)	K_1 - CREEK ABANDONED AT ROAD (PIPED UNDER ROAD E)
F_5 - ROAD CROSSING (SPAN) WATER 8" LINE	K_2 - ROAD CROSSING (SPAN) WATER 8" LINE
F_6 - SEWER 12" LINE	D_1 - RELOCATED STREAM
F_7 - SEWER 12" LINE	L_1 - EXISTING 4" LINE TO BE UPGRADED IN EXISTING LOCATION TO 12" LINE
G_1 - RELOCATED STREAM	
J_1 - RELOCATED STREAM	
$F_{1,2}$ - RELOCATED STREAM	



NOTES:

1. *ALL VEHICULAR CROSSING WILL BE DESIGNED AS SPAN BRIDGES TO MINIMIZE IMPACT ON STREAMS.*
2. *UTILITIES WILL CROSS CREEKS AT BRIDGE LOCATIONS WHERE AT ALL POSSIBLE.*
3. *TOTAL REPLACEMENT STREAM LENGTH WILL BE EQUAL TO THE SUM OF THE ABANDONED STREAM LENGTHS AND BE PLANTED WITH APPROVED TDEC NATIVE PLANTINGS.*

RAGAN-SMITH

LAND PLANNERS · CIVIL ENGINEERS
LANDSCAPE ARCHITECTS · SURVEYORS

RAGAN-SMITH ASSOCIATES, INC.

0 200 400 600

EXHIBIT B
File No. 2005-02419
Public Notice 05-106
Plan View

CARELLTON

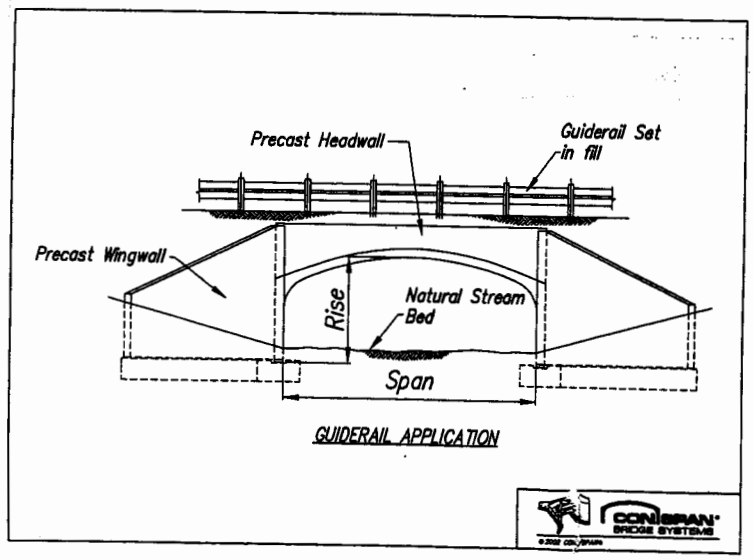
ARAP APPLICATION PLAN

LONG HOLLOW PIKE @ LOWER STATION CAMP CREEK ROAD
EIGHTH CIVIL DISTRICT OF SUMNER COUNTY, TENNESSEE

ISSUE DATE 11/16/05 SHEET 01 OF 01

EXHIBIT C
File No. 2005-02419
Public Notice 05-106
Stream Characteristics

CARELLTON STREAM CHARACTERISTICS								
Stream Point	Floor width (ft.)	Top width (ft.)	Height (ft.)	Strata present	Root wads	Flow present	Pools present	Riparian Veg.
D-1	5-6	14-15	5-6	Medium cobble	yes	no	no	herb and tree species
D-2	4	10	2	Medium cobble	limited	no	no	herb and tree species
D-3	4-5	12	3-3.5	Small cobble	yes	no	no	herb and tree species
D-4	1	1	0.5	none	none	no	no	none
F-1	8-10	15-20	3-5	Large stone	yes	no	yes	herb and tree species
F-2	8-10	15-20	2-3	Medium stone	yes	no	no	herb and tree species
F-3	8	16	2.5	Bedrock at surface	none	no	no	herb species
F-4	11	15	2	Large stone & bedrock	limited	no	yes	herb and tree species
G-1	4	11	4	Limited cobble	limited	no	no	herb and tree species
G-2	4	16	5	Medium stone	yes	no	no	herb and tree species
G-3	4	12	4	Limited cobble	limited	no	no	herb and tree species
I-1	-	-	-	none	none	no	no	herb and tree species
I-2	-	-	-	none	none	no	no	herb species
I-3	4	4	0.25	Small stone & bedrock	none	no	no	herb species



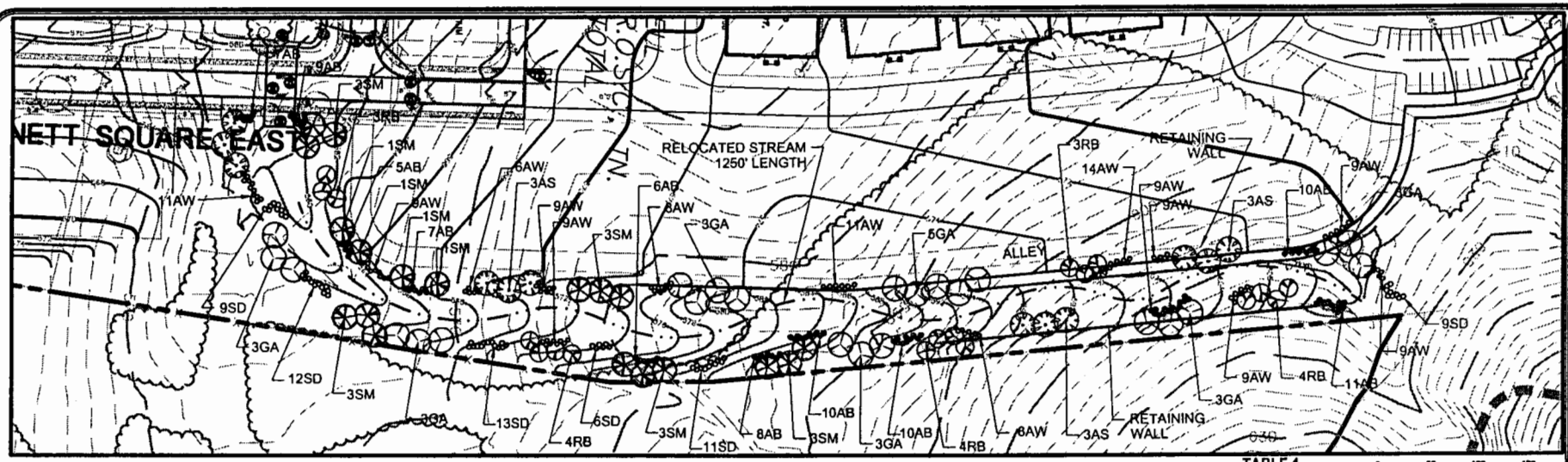


TABLE 1

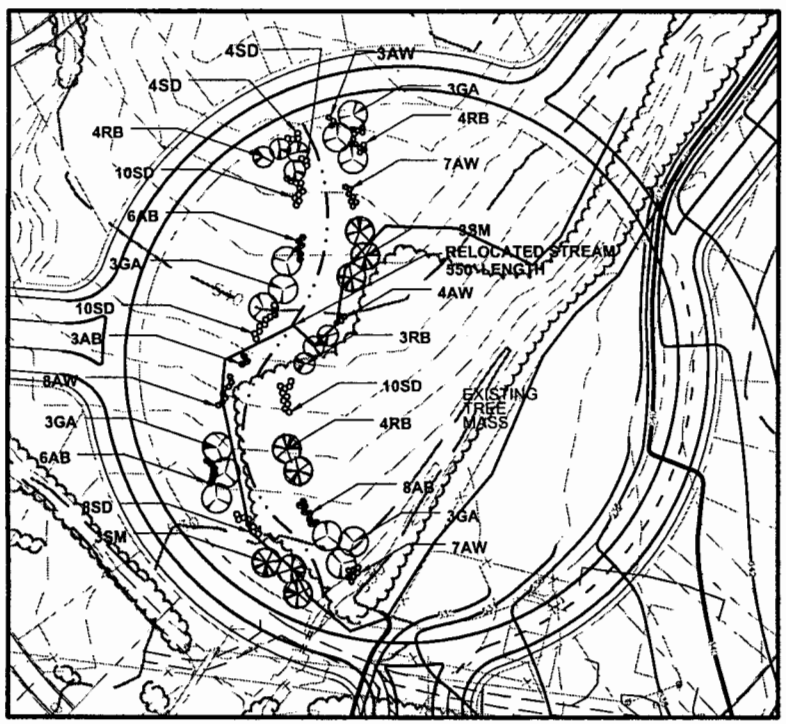
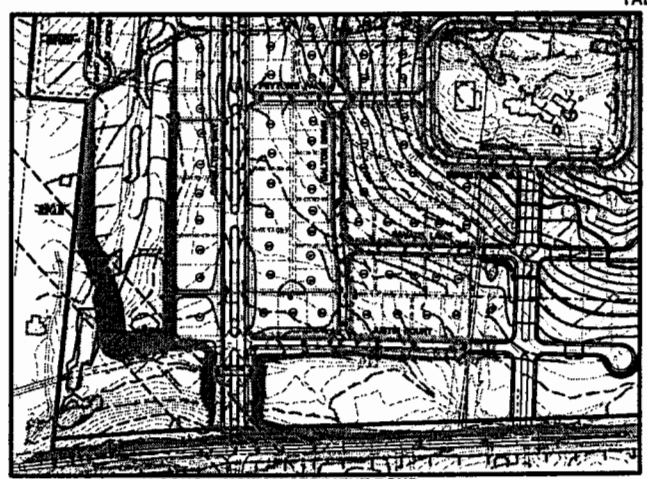


TABLE 2

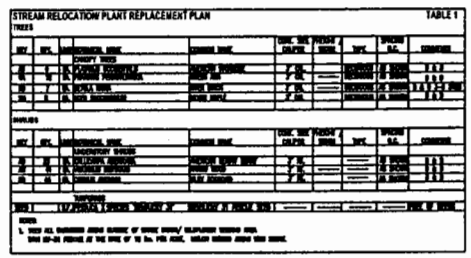


TEMPORARY CONSTRUCTION SEDIMENT POND

NOTES:

REPLACEMENT STREAM LENGTH WILL BE EQUAL TO THE SUM OF THE ABANDONED STREAM LENGTHS AND BE PLANTED WITH TDEC APPROVED NATIVE WOODY (TREES AND SHRUBS) AND HERBACEOUS PLANTINGS.

A SEDIMENT POND WILL BE BUILT IN THE APPROXIMATE SHOWN LOCATION DURING PHASE 1 CONSTRUCTION.



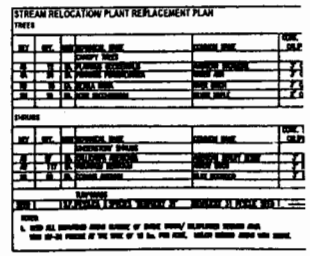


EXHIBIT D
File No. 2005-02419
Public Notice 05-106
Mitigation Plan

CARELLTON PHASE 1A

A PROPOSED RESIDENTIAL DEVELOPMENT
EIGHTH CIVIL DISTRICT, SUMNER COUNTY, TENNESSEE

STREAM RELOCATION PLAN

LAND PLANNERS - CIVIL ENGINEERS
LANDSCAPE ARCHITECTS - SURVEYORS
RAGAN-SMITH ASSOCIATES, INC.

REVISIONS

DESIGNED BY:	E.Poppiore
DRAWN BY:	B. Shrum
APPROVED BY:	J. Kilgore
SCALE:	1"=50'
DATE:	November 21,2005
JOB NO.	WK. ORDER
04-085	7828

SHEET NO.

L1

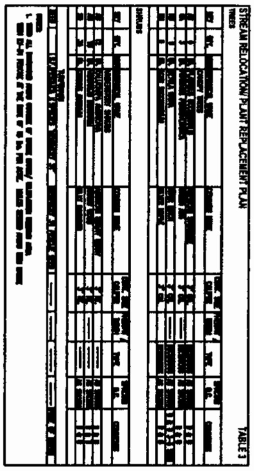
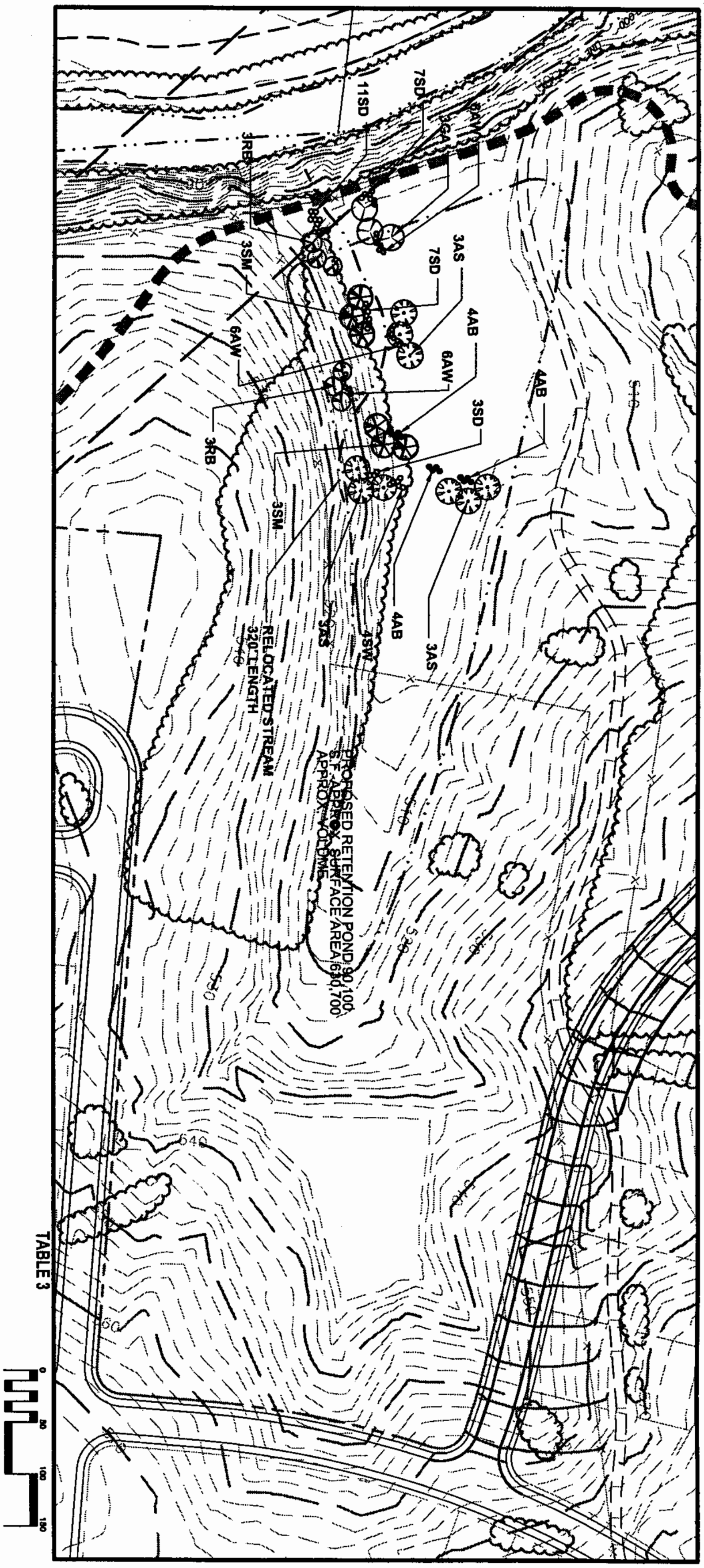


EXHIBIT E

File No. 2005-02419

Public Notice 05-106

Mitigation Plan



CARELLTON
PHASE 1
A PROPOSED RESIDENTIAL DEVELOPMENT
EIGHTH CIVIL DISTRICT, SUMNER COUNTY, TENNESSEE

STREAM RELOCATION PLAN

RAGAN-SMITH
LAND PLANNERS · CIVIL ENGINEERS
LANDSCAPE ARCHITECTS · SURVEYORS
RAGAN-SMITH-ASSOCIATES, INC.

DATE: November 21, 2005
SCALE: 1"=50'
JOB NO. 04-086
SHEET NO. L2